

### REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 15-18 and 20-26 are now present in this application. Claims 15-18 are independent. By this Amendment, claim 19 is canceled without prejudice, and claims 15-18, 20 and 22 are amended. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

### Election/Restriction/ Lack of Unity of Invention

Applicant continues to traverse the holding of lack of unity of invention and withdrawal of method claims 15-17 from consideration and examination on their merits, notwithstanding the Group Director's decision on petition, dated March 19, 2010, and reserves the right under 37 CFR § 1.144 to file a further petition to the Commissioner to act in his supervisory capacity to overturn that decision on petition. Applicant notes that, by the express terms of 37 CFR § 1.144, such a petition is timely if filed prior to the taking of an appeal in this application.

Applicant notes, in this regard, that MPEP § 1893.03(d) clearly states that "an apparatus or means is specifically designed for carrying out the process when the apparatus or means is suitable for carrying out the process with the technical relationship being present between the claimed apparatus or means and the claimed process. The expression specifically designed does not imply that the apparatus or means could not be used for carrying out another process, nor does it imply that the process could not be carried out using an alternative process or means."(emphasis added).

Additionally, MPEP § 1893.03(d) also explicitly states: **When Claims Are Directed to Multiple Categories of Inventions:** As provided in 37 CFR 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: **1893.03(d) MANUAL OF PATENT EXAMINING PROCEDURE Rev. 7, July 2008, 1800-210, (1)**A product and a process specially adapted for the manufacture of said product; or **(2)**A product and process of use of said product; or **(3)** A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or **(4)** A process and an

apparatus or means specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

The Group Director has to follow the MPEP, and the MPEP clearly does not require a "special technical feature" be commonly recited in the different statutory categories. Instead, it only requires that a "technical relationship" be commonly recited for unity of invention to exist.

Accordingly, unity of invention exists between the method and apparatus claims and claims 15-17 should be examined on their merits in the next Office Action.

Additionally, Applicant respectfully submits that all pending claims commonly recite special technical features, as explained below, and for this additional reason, all claims should be examined on their merits.

#### **Telephone Interview**

Applicant acknowledges with appreciation the courtesies extended by Examiner Gregg Cantelmo to their representative, Robert J. Webster, Reg. No. 46,472, during the telephone interview conducted on September 8, 2010. Although agreement was not reached concerning claim amendments that would patentably define over the applied art, certain directions toward amending the claims to accord patentable weight to all features of the claims were discussed.

#### **Rejection under 35 U.S.C. § 112, Second Paragraph**

Claim 20 stands rejected under 35 U.S.C. § 112, second paragraph for being vague and indefinite, because it does not contain a period at the end of the claim. This rejection is respectfully traversed in view of the fact that a period has been added at the end of claim 20. Applicant notes that this amendment does not affect the scope of the claim in any way.

#### **Rejection under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a)**

Claims 18-25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,976,506 to Landau. Claims 18-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 01-234024 to Iwasa. Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Landau in view of either JP 10-334936 or U.S. Patent 4,622,275 to Nogichi or

U.S. Patent 5,482,791 to Shingai. These rejections are respectfully traversed as moot with respect to claim 19, which has been canceled, and is traversed on the merits with respect to claims 18 and 20-25.

Applicant respectfully submits that claims 18 and 20-25 patentably define over the aforementioned applied art for reasons presented below.

As amended, independent, claim 18 recites a system for protection of high temperature fuel cells in mobile systems wherein said fuels cells are subject to load variations of more than five percent over a period of one hour, comprising: at least one first high temperature fuel cell installation that uses fuel other than only hydrogen for generating energy; a second fuel cell installation comprising at least one buffer having a capacity for storage of surplus energy of the fuel cell, adapted to function as a regulating system between the at least one high temperature fuel cell and a energy consumption unit regarding the load variations according to the capacity of the at least one buffer; a device for dumping energy which is required to be led out of the system when the buffer is full or according to need; an energy generator/converter for transforming energy stored in the buffer to a required form of energy, at greater energy need than the fuel cell can meet, or for transforming of fuel cell generated energy which is not used by the energy consumption unit and to be stored in another form, or for transforming of energy stored in the buffer for dumping in another form; wherein the at least one buffer, energy generator/converter and device for dumping energy accommodate load variations applied to the at least one first high temperature fuel cell installation so that the at least one first high temperature fuel cell is adapted to function as a producer of electric energy while being subject to said load variations of more than five percent over a period of one hour.

Landau does not explicitly disclose this claimed combination of features. Nor does Iwasa. Nor does Landau or Iwasa inherently disclose this claimed combination of features. In this regard, Applicant notes that inherency may not be established by probabilities or possibilities. What is inherent, must necessarily be disclosed. *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Iwasa merely discloses using boiler waste heat to supply heat to a fuel cell, and Landau's boiler 20 merely uses waste heat from the fuel cell stack 12 as a boiler fuel supply. Neither

reference discloses or suggests a second fuel cell installation comprising at least one buffer having a capacity for storage of surplus energy of the fuel cell, adapted to function as a regulating system between the at least one high temperature fuel cell and a energy consumption unit regarding the load variations according to the capacity of the at least one buffer, or wherein the at least one buffer, energy generator/converter and device for dumping energy accommodate load variations applied to the at least one first high temperature fuel cell installation so that the at least one first high temperature fuel cell is adapted to function as a producer of electric energy while being subject to said load variations of more than five percent over a period of one hour, as claimed.

With respect to according patentable weight to the claim preamble, Applicant continues to believe that the *Kropa v. Robie* decision supports according patentable weight to the claim preamble for reasons previously presented in two previous amendments. Moreover, where, as here, a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. *See Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed.Cir. 1989). **The substance of this last argument was not addressed in the outstanding Office Action, despite the fact that MPEP § 707.07(f) requires that it be treated on its merits.**

Additionally, claim 18 recites the subject matter of the claim preamble not only in the claim preamble, but also in a wherein clause in the body of the claim itself. Applicant refers the Examiner to *Akamai Technologies Inc., v. Cable & Wireless Internet Services Inc.*, 68 USPQ2d 1186 (Fed. Cir. 2003), where patentable weight was given to the “wherein” clause without question. Similarly, in *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002), the court held that the wherein clause limits the subject matter in issue. Applicant respectfully submits that the wherein clause recites features that are not otherwise inherent in the claim and that are used to patentably define the invention. Applicant respectfully submits that the wherein clause has to be given patentable weight and that none of the applied art discloses the positively recited features in the wherein clause. **The substance of this last argument was not addressed in the outstanding Office Action, despite the fact that MPEP § 707.07(f) requires that it be treated on its merits.**

Furthermore, the claims positively recite features in terms of “adapted to.” In this regard, for example, claim 18 recites, “wherein the at least one buffer, energy generator/converter and device for dumping energy accommodate load variations applied to the at least one first high temperature fuel cell installation so that the at least one first high temperature fuel cell is adapted to function as a producer of electric energy while being subject to said load variations of more than five percent over a period of one hour.” (Emphasis added).

Applicant also respectfully submits that it is perfectly logical to claim the at least one first high temperature fuel cell in terms that refer to it being adapted to function as a producer of electric energy while being subject to said load variations of more than five percent over a period of one hour.

In this regard, Applicant refers to the decision by the Court of Customs and Patent Appeals in In re Venezia, 189 USOQ 149 (CCPA 1976). In that case, a number of claims were presented. Claim 31, with emphasis, was representative of the claims on appeal and read, as follows:

31. A splice connector kit having component parts *capable of being assembled* in the field at the terminus of high voltage shielded electrical cables for providing a splice connection between first and second such cables, said cables each having a conductor surrounded by an insulating jacket within a conductive shield wherein a portion of the conductive shield is removed to expose the insulating jacket and a portion of the insulating jacket is removed to expose the conductor at the terminus of the cable, the kit comprising the combination of:

a pair of sleeves of elastomeric material, each sleeve of said pair *adapted to be fitted* over the insulating jacket of one of said cables, each said sleeve having an external surface and a resiliently dilatable internal bore for gripping the insulating jacket to increase the dielectric strength of the creep path along the insulating jacket;

electrical contact means *adapted to be affixed* to the terminus of each exposed conductor for joining the conductors and making an electrical connection therebetween;

a pair of retaining members *adapted to be positioned* respectively between each of said sleeves fitted over the insulating jacket of each said cable and the corresponding terminus of each said cable, said retaining members each having means cooperatively associated therewith for maintaining each said member's position relative to the insulating jacket on each said cable and for precluding axial movement of the sleeve toward the corresponding terminus of each said cable; and

a housing, said housing having an internal bore extending therethrough from end to end, said housing including portions adjacent each end thereof

defining said internal bore and being resiliently dilatable *whereby said housing may be slideably positioned* over one of said cables and *then slideably repositioned* over said sleeves, said retaining members, and said contact means *when said sleeves, said retaining members and said contact means are assembled* on said cables as hereinaforesaid, said resiliently dilatable portions of said housing respectively gripping the corresponding external surface of each said sleeve in watertight sealing relationship therewith and said housing having a further portion intermediate its ends defining said internal bore and forming a sealed chamber enclosing at least said contact means and the exposed portions of said cable conductors *when said housing is in its repositioned location*.

The Court reviewed the disputed claims and, in particular, the language criticized by the Examiner and the Board, and concluded that the claims do define the metes and bounds of the claimed invention with a reasonable degree of precision and particularly, and that they are, therefore, definite as required by the second paragraph of section 112. As the Court viewed these claims, they precisely define a group or "kit" of interrelated parts. The Court continued by stating:

These interrelated parts may or may not be later assembled to form a completed connector. But what may or may not happen in the future is *not* a part of the claimed invention. The claimed invention does include present structural limitations on each part, which structural limitations are defined by how the parts are to be interconnected in the final assembly, if assembled. However, this is not to say that there is anything futuristic or conditional in the "kit" of parts itself. For example, paragraph two of claim 31 calls for "a pair of sleeves \* \* \* each sleeve of said pair adapted to be fitted over the insulating jacket of one of said cables." Rather than being a mere direction of activities to take place in the future, this language imparts a structural limitation to the sleeve. Each sleeve is so structured or dimensioned that it can be fitted over the insulating jacket of a cable. A similar situation exists with respect to the "adapted to be affixed" and "adapted to be positioned" limitations in the third and fourth paragraphs of the claim. The last paragraph of claim 31 contains additional language criticized by the board, including "may be slideably positioned," "slideably repositioned," "when said sleeves \* \* \* are assembled," and "when said housing is in its repositioned location." However, this language also defines present structures or attributes of the part of the "kit" identified as the housing, which limits the structure of the housing to those configurations which allow for the completed connector assembly desired. Again, a present structural configuration for the housing is defined in accordance with how the housing interrelates with the other structures in the completed assembly. We see nothing wrong in defining the structures of the components of the completed connector assembly in terms of the interrelationship of the components, or the attributes they must possess, in the completed assembly. More particularly, we find nothing indefinite in these claims. One skilled in the

art would have no difficulty determining whether or not a particular collection of components infringed the collection of interrelated components defined by these claims. In re Miller, supra. (emphasis added).

Applicant respectfully submits that none of the applied art discloses the features recited in both the claim preamble and in the body of the claim and recited as “adapted to be” and as recited in the “wherein” clause language.

Landau’s boiler 20, i.e., the portion of Landau relied upon in the rejection to disclose the claimed buffer. More specifically, Applicant respectfully submits that none of the applied art discloses a system for protection of high temperature fuel cells in mobile systems wherein the mobile system fuel cells function as a producer of electricity while being subject to load variations of more than five percent over a period of one hour.

With respect to JP ‘024, Applicant respectfully submits that JP ‘024 does not disclose the claim preamble features and instead, is directed to a simple DC power storage system that uses low temperature fuel cells that do not have the characteristics of Applicant’s claimed high temperature fuel cells or a load variation system for protection of high temperature fuel cells that are subject to load variations of at least thirty percent over a period of 15 seconds, as claimed.

With respect to Landau, applied as an anticipatory reference, Applicant respectfully submits that this reference also fails to disclose Applicant’s claimed high temperature fuel cells or a load variation system for protection of high temperature fuel cells that are subject to load variations of more than five percent over a period of one, as claimed.

Additionally, Landau’s boiler 20 is not a storage, or a buffer for storing, of surplus energy, arranged to function as a regulating system between the fuel cell and an energy consumption unit, as claimed. In Applicant’s invention, the buffer, which may be a boiler, is a separate element from the fuel cell that is between the fuel cell and the receiver of the fuel cell energy. This differs from Landau, whose boiler 20 is an integral element of the power plant and is used simply to heat water to steam.

Accordingly, the Office Action fails to make out a *prima facie* case of anticipation of the claimed invention recited in claims 18-26.

With respect to the three alternative reference combinations, i.e., Landau in view of either JP 10-334936 (“JP ‘936”) or U.S. Patent 4,622,275 to Noguchi, or U.S. Patent 5,482,791 to

Shingai, Applicant respectfully submits that none of these reference combinations render obvious the claimed invention.

Applicant respectfully submits that Landau fails to disclose the invention recited in claim 18, for reasons set forth above, and that none of the auxiliary references are applied to remedy the shortcomings of Landau with respect to the claimed invention.

So, even if one of ordinary skill in the art were (for sake of argument only) properly motivated to modify Landau in view of any of the three alternatively applied auxiliary references, the so-modified version of Landau would still not disclose, suggest, or otherwise render obvious the claimed invention.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the claimed invention recited in claims 18-26.

Thus, consideration and allowance of claims 18-26 are respectfully requested.



**CONCLUSION**

In view of the foregoing claim amendments and remarks, Applicant respectfully requests that the holding of lack of unity of invention and the election of species requirement be withdrawn, that claims 15-17 be examined on their merits, and that all pending claims be allowed.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46, 472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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